

نام و نام خانوادگی پروین اخوان پاسخنامه تشریحی تکلیف شماره ۱۲ ... کلاس ... دوم ... پیر ... B

الف) $a_n = 4n + 1$ / $a_n = 8 + (n-1)4$

ب) $\Rightarrow 4 \times 10 + 1 = 41 \rightarrow a_{10}$

الف) $S_1 = 8(2 \times 4 + 4 \times 4) = 24$

ب) $a_{14} + a_{13} + a_{11} + a_{12} = S_4 = 4(2a_{14} + (n-1)4) \left\{ a_{14} = 4 \times 14 + 1 = 57 \right.$

$\Rightarrow S_4 = 4(2 \times 57 + 3 \times 4) = 596$

$a_{14} - a_{12} = a_{13} - a_{11}$

$\Rightarrow a_{14} - a_{12} = 57 - 53 = 4 = 2 - 2\sqrt{3}$

$a_n = \frac{8^x + 8^y}{2} = 8^x 8^y \Rightarrow 8^x + 8^y = 4 \times 8^x$

$8^y = 4 \times 8^x - 8^x \Rightarrow 8^y = 3 \times 8^x \Rightarrow 8^y = 8^{x+1}$

$b_n = x, 2, y \Rightarrow \frac{x+y}{2} = 2 \Rightarrow x+y = 4 \Rightarrow y = 4-x$

$\Rightarrow 2x+1 = 4-x \Rightarrow 3x = 3 \Rightarrow x = 1$ $y = 4-x = 3$ $xy = 1 \times 3 = 3$

$\frac{4n + 2n - 4}{2} = 2n - 1 \Rightarrow 6n - 4 = 4n - 2$

$\Rightarrow 2n = 2 \Rightarrow n = 1$

$2(\frac{1}{2}) - 4, 2(\frac{1}{2}) - 1, 4(\frac{1}{2}), 4(\frac{1}{2}) + 2 \Rightarrow -3, 0, 2, 3, -$
+3 +3 +3 $a_4 = 4$

شترن $\rightarrow 8, 11, 17, 22, \dots$

و جمله شترن دارند

$$a_r = 2 \times r + 1 = 51$$

$$\Rightarrow \frac{51-8}{4} + 1 = 11$$

$$b_r = 3 \times r - 1 = 59$$

6

$$a_1 + a_r + a_r = 11 \Rightarrow a_1 + a_r = 2a_r = 2a_r = 11$$

$$\Rightarrow a_r = 11$$

$$, a_1 + a_r + a_8 = 108$$

$$a_1 + a_8 = 2a_r \Rightarrow 2a_r = 108 \Rightarrow a_r = 54$$

$$8 + 11 + a_1 = 11 \Rightarrow a_1 = -8$$

$$\frac{108 - 11(11)}{-11} = \frac{11}{-11}$$

$$\left(-\frac{1}{11} \right) \leftarrow$$

7

$$a_1 + a_r + a_r = 10, a_1 + a_r = 2a_r \Rightarrow 2a_r = 10 \Rightarrow a_r = 5$$

$$a_1 + a_r + a_r + a_8 + a_8 = 10 + 10 = 20, a_1 + a_8 = 2a_r / a_r + a_8 = 2a_r$$

$$\Rightarrow 20 = 2a_r \Rightarrow a_r = 10, 8 + 10 + a_1 = 10 \Rightarrow a_1 = -8$$

8

$$\Rightarrow a_1 = 1 + 3 \times 9 = 28$$

$$S_1 = 9S_r \Rightarrow \frac{9}{1} (a_1 + 10d) = \frac{9 \times 10}{1} (2a_1 + 10d)$$

$$\Rightarrow 9a_1 + 90d = 180a_1 + 900d$$

$$\Rightarrow 9d = 171a_1$$

$$\frac{a_r}{a_1} = \frac{a_1 + 10d}{a_1 + 9d} = \frac{a_1 + 171a_1}{a_1 + 9d} = \frac{172a_1}{171a_1} = \frac{172}{171}$$

9

$$a_1 = 11, a_1 = 11 \Rightarrow a_8 = \frac{11 + 7d}{1} = 17 \Rightarrow d = 1$$

$$a_1' = 17 \Rightarrow a_1' + 7d' = 17$$

$$\frac{17-11}{1} = 6$$

10

$$17 + 7d' = 17 \Rightarrow d' = 0$$

$$\frac{b-a}{k+1} = d$$

$$\frac{17-11}{k+1} = \frac{-10}{k+1} = -10 \Rightarrow k = 11$$

$$(11, 17)$$